

Temperature Convertor

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First Steps

- With Xcode open
 - Create a new Project



Welcome to Xcode

Version 4.0.2 (4A2002a)



Create a new Xcode project

Start building a new Mac, iPhone or iPad application from one of the included templates



Connect to a repository

Use Xcode's integrated source control features to work with your existing projects



Learn about using Xcode

Explore the Xcode development environment with the Xcode 4 User Guide



Go to Apple's developer portal

Visit the Mac and iOS Dev Center websites at developer.apple.com

Recents

No recents

No Selection

Open Other...

☒ Show this window when Xcode launches

Cancel

Open

Creating Your Project

- Choose a View Based Project
 - Give your project a name (ie.TempConvertor)
 - Give a company identifier
 - This is either your individual or company domain reversed
 - com.yourcompany

Choose a template for your new project:

iOS

Application

Framework & Library

Other

Mac OS X

Application

Framework & Library

Application Plug-in

System Plug-in

Other

Navigation-based
Application

OpenGL ES
Application

Split View-based
Application

Tab Bar Application

Utility Application

View-based
Application

Window-based
Application

 **View-based Application**

This template provides a starting point for an application that uses a single view. It provides a view controller to manage the view, and a nib file that contains the view.

Cancel

Previous

Next

Choose options for your new project:

Product Name

Company Identifier

net.itsbrent

Bundle Identifier

net.itsbrent.-

Device Family

iPhone

☐ Include Unit Tests

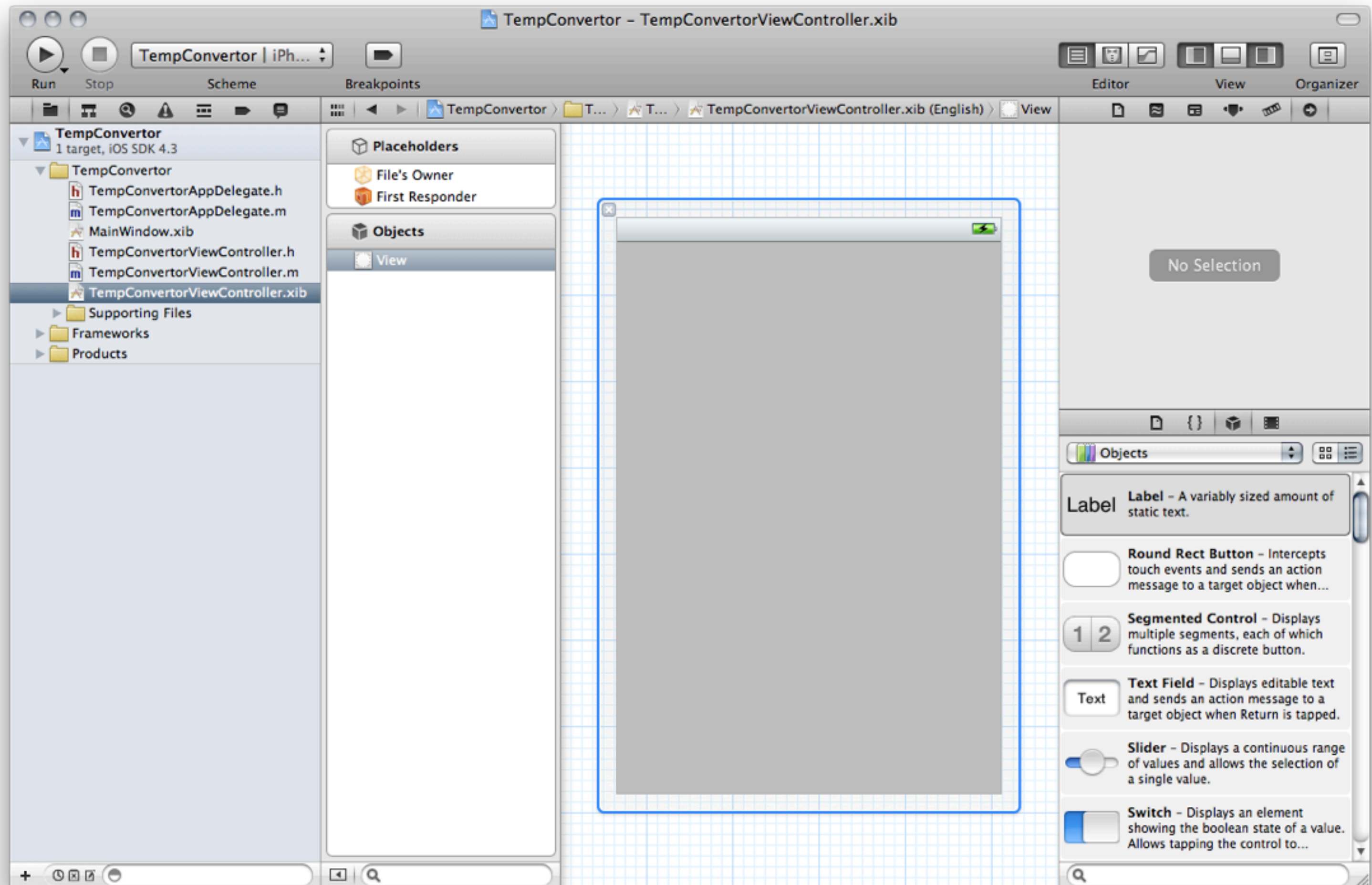
Cancel

Previous

Next

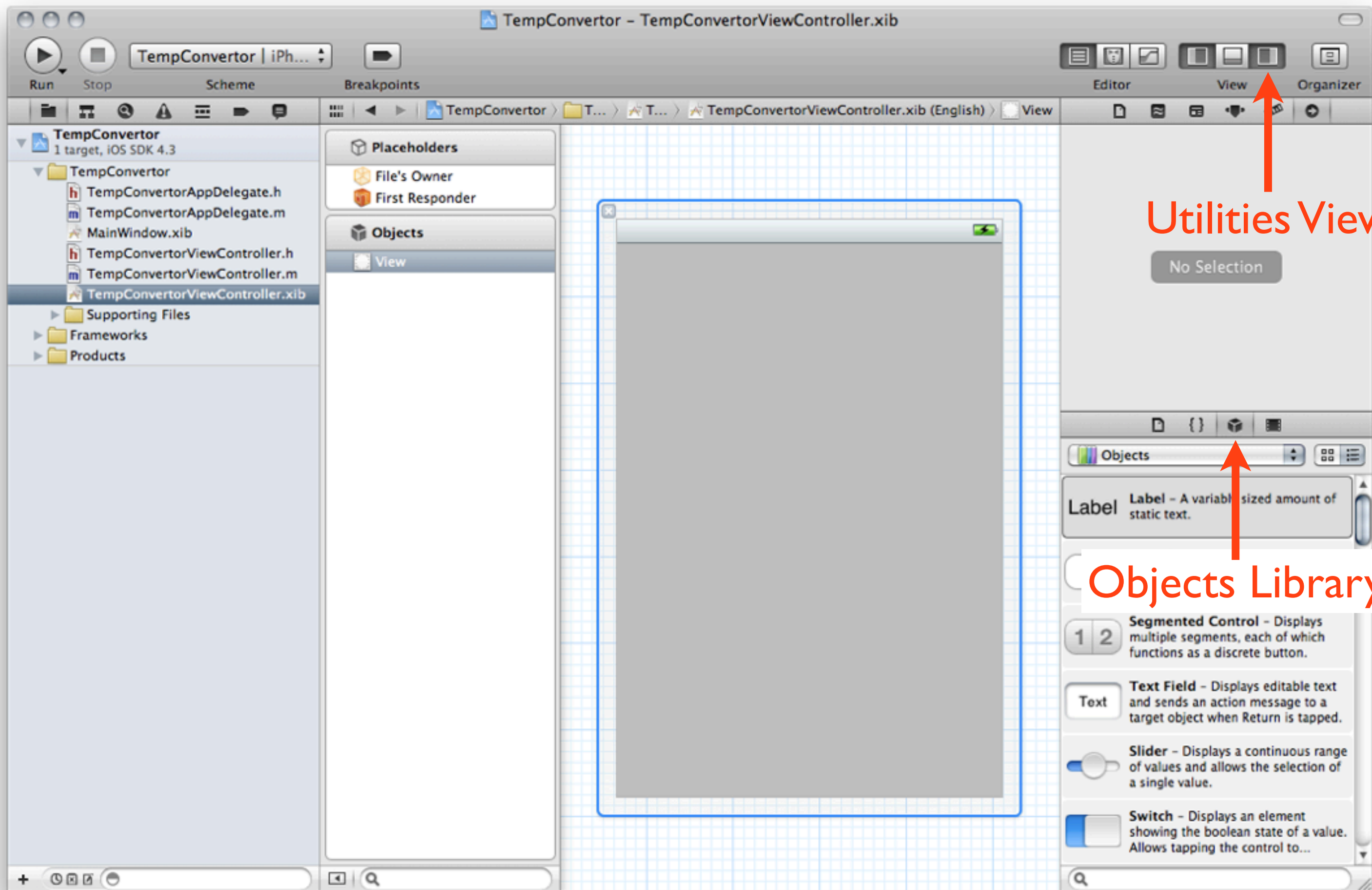
Add Our UI Objects

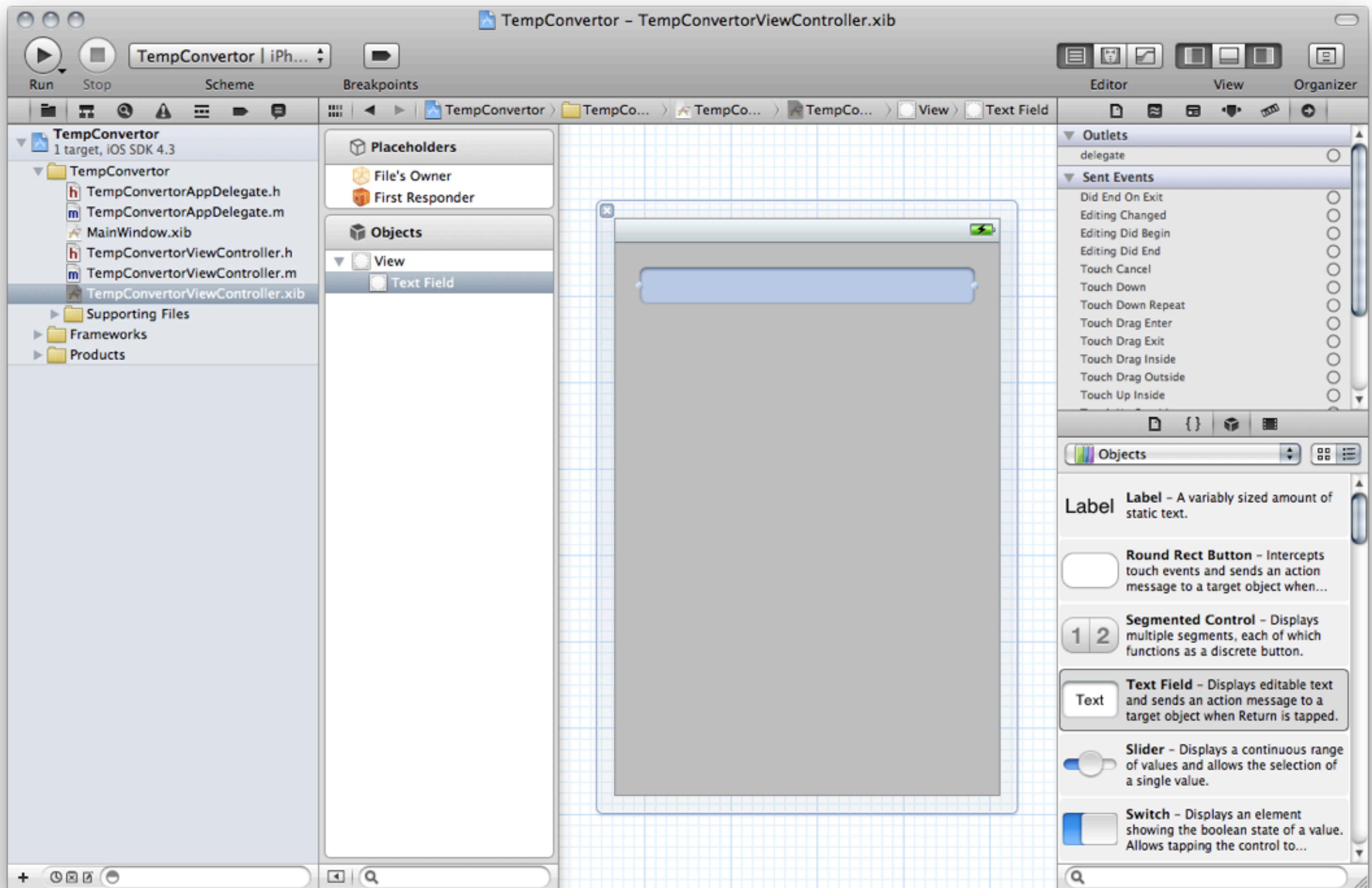
- We will need:
 - 1x Input Field
 - 2x Buttons (To °C and To °F)
 - 1x Output Label
- Lets open TempConvertorViewController.xib

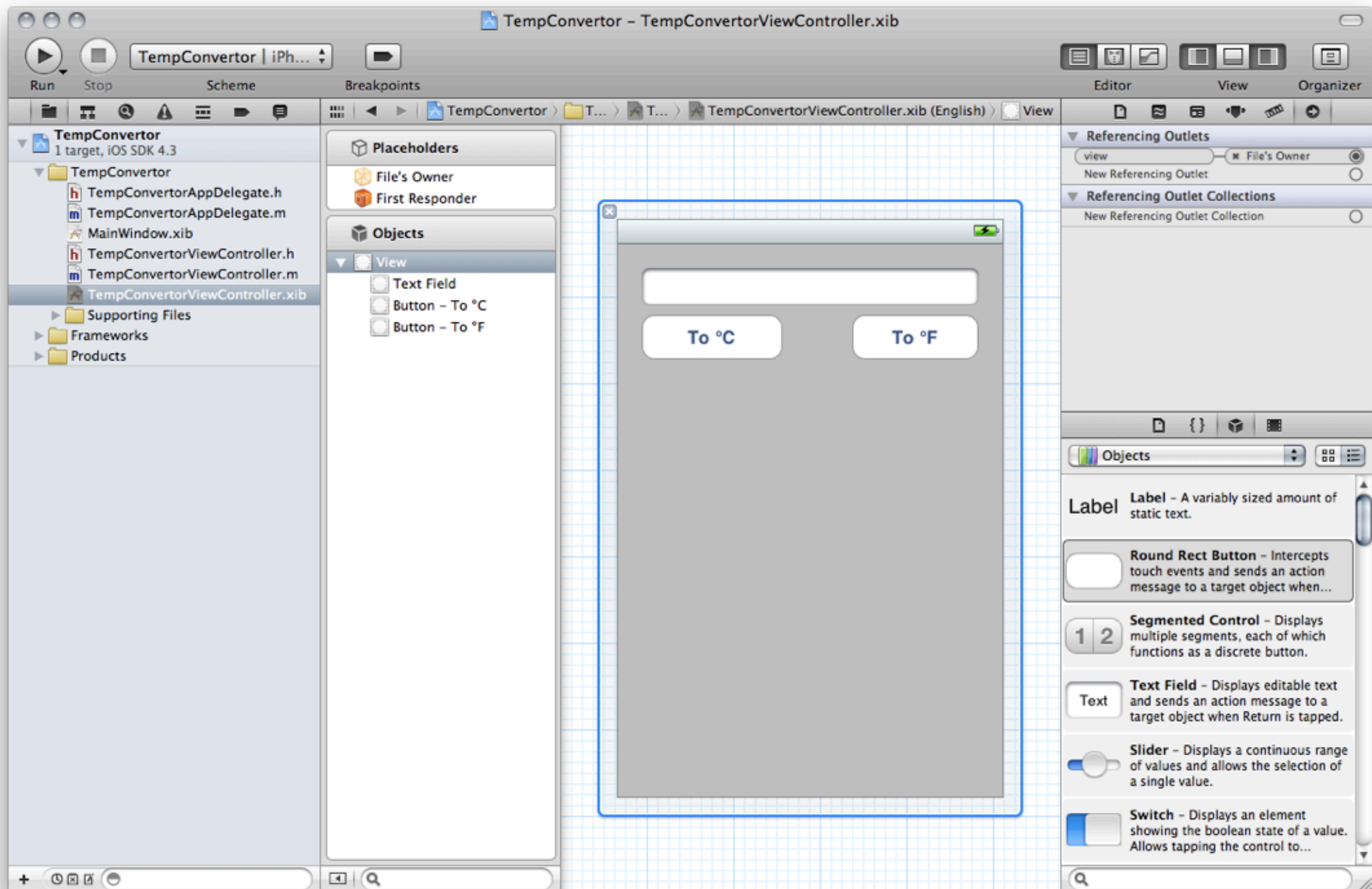


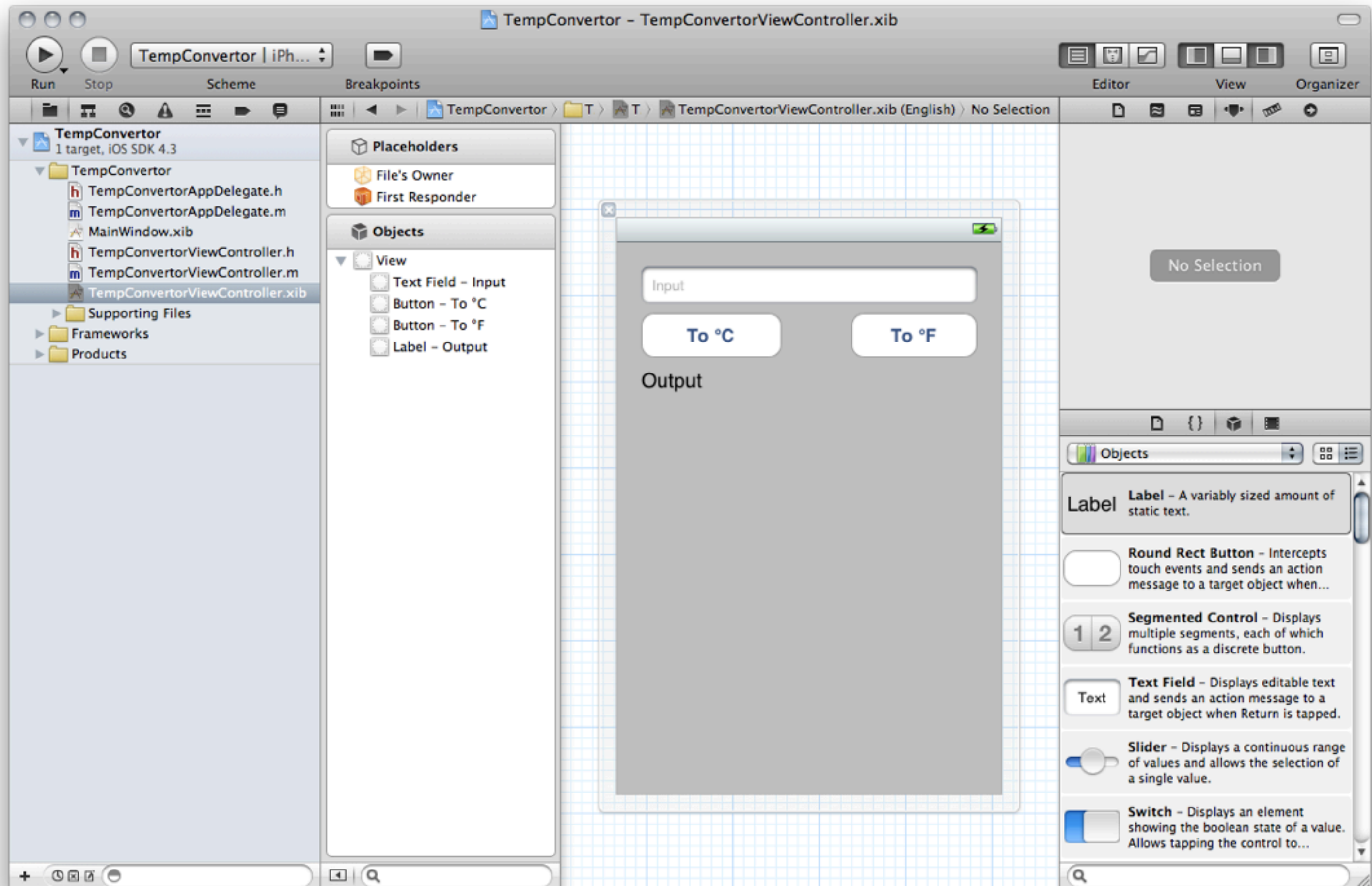
Interface Builder

- If using Xcode 4
 - Open the utilities view
 - Show the object library in the bottom panel of the utilities view









Lets Hook Our UI Objects Up

- In our TempConvertorViewController interface file we need IBOutletlets and IBActions for our Objects
 - 2x IBOutletlets (Input Field and Label)
 - 2x IBActions (Buttons)

```
#import <UIKit/UIKit.h>
```

```
@interface TempConvertorViewController :  
UIViewController {
```

```
}
```

```
@end
```

```
#import <UIKit/UIKit.h>
```

```
@interface TempConvertorViewController :  
UIViewController {  
    IBOutlet UITextField *inputField;  
    IBOutlet UILabel *outputField;  
}
```

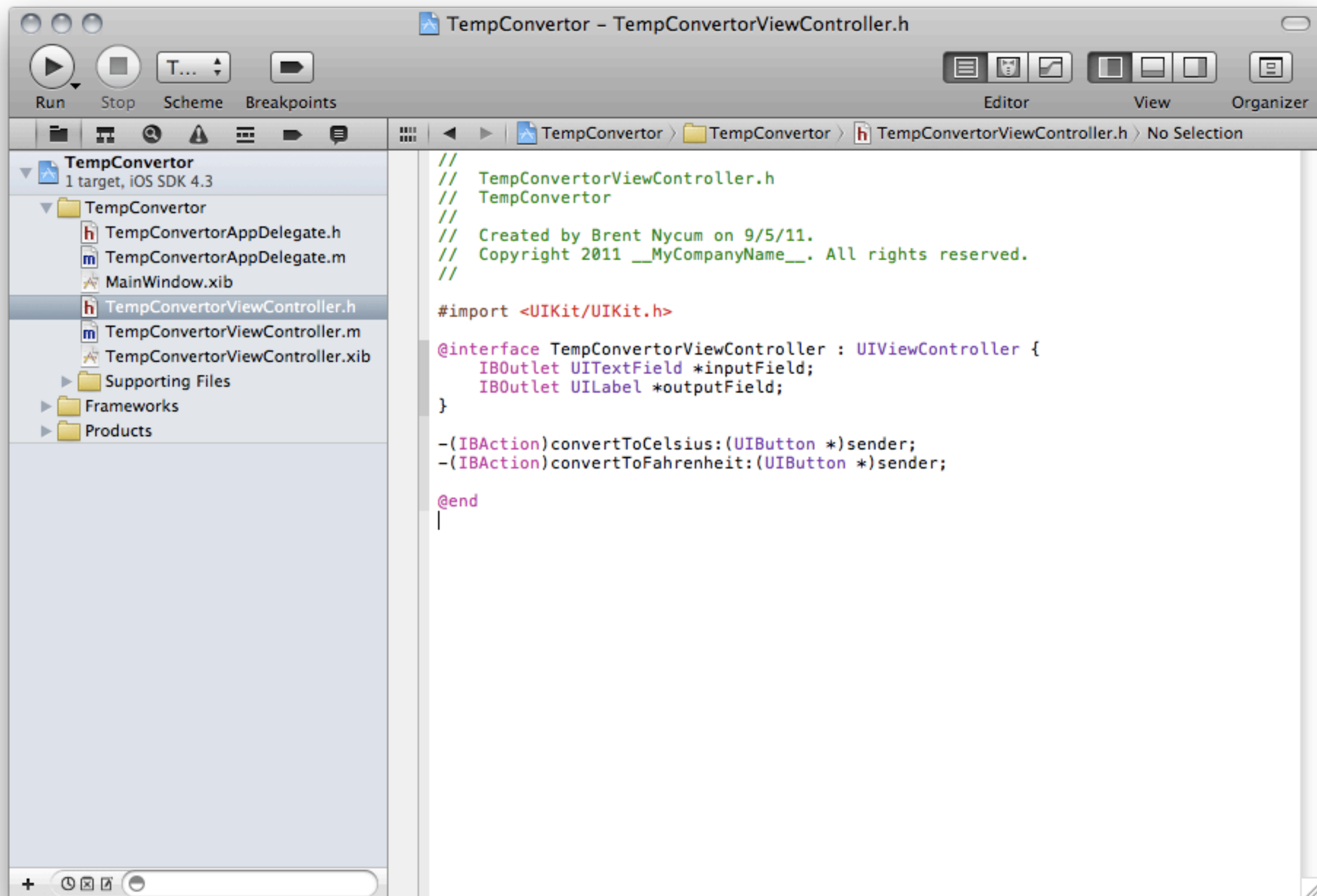
```
@end
```

```
#import <UIKit/UIKit.h>
```

```
@interface TempConvertorViewController :  
UIViewController {  
    IBOutlet UITextField *inputField;  
    IBOutlet UILabel *outputField;  
}
```

```
-(IBAction)convertToCelsius:(UIButton *)sender;  
-(IBAction)convertToFahrenheit:(UIButton *)sender;
```

```
@end
```



Conversions

- $[^{\circ}\text{C}] = ([^{\circ}\text{F}] - 32) \times 5.0 / 9.0$
- $[^{\circ}\text{F}] = [^{\circ}\text{C}] \times (9.0 / 5.0) + 32$

Lets Create Our Actions

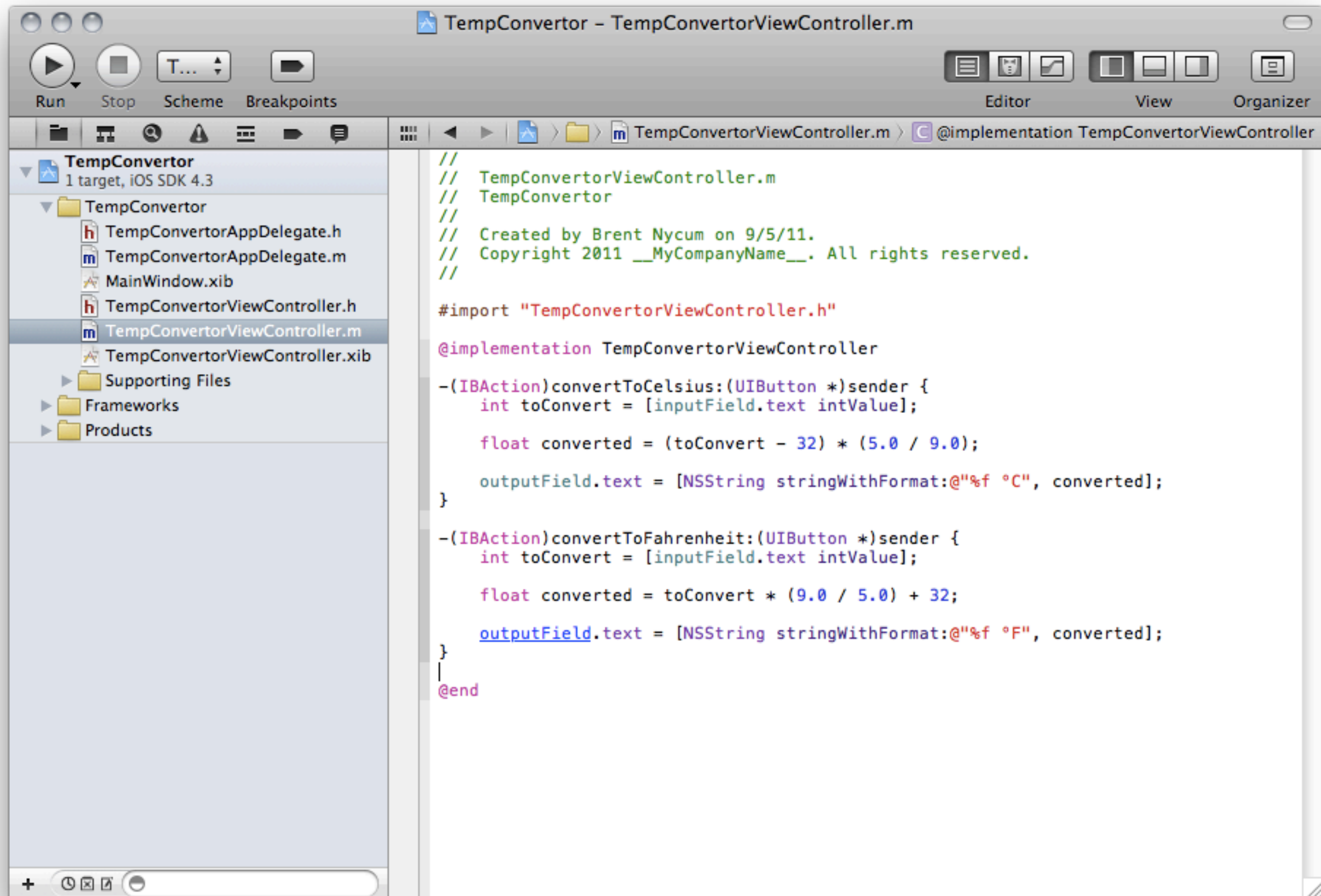
- Get Integer Representation of Textfield
 - [inputField.text intValue]
- Convert Value
- Set output field

To Celsius

```
-(IBAction)convertToCelsius:(UIButton *)sender {  
    int toConvert = [inputField.text intValue];  
  
    float converted = (toConvert - 32) * (5.0 / 9.0);  
  
    outputField.text = [NSString stringWithFormat:@"%f °C",  
converted];  
}
```

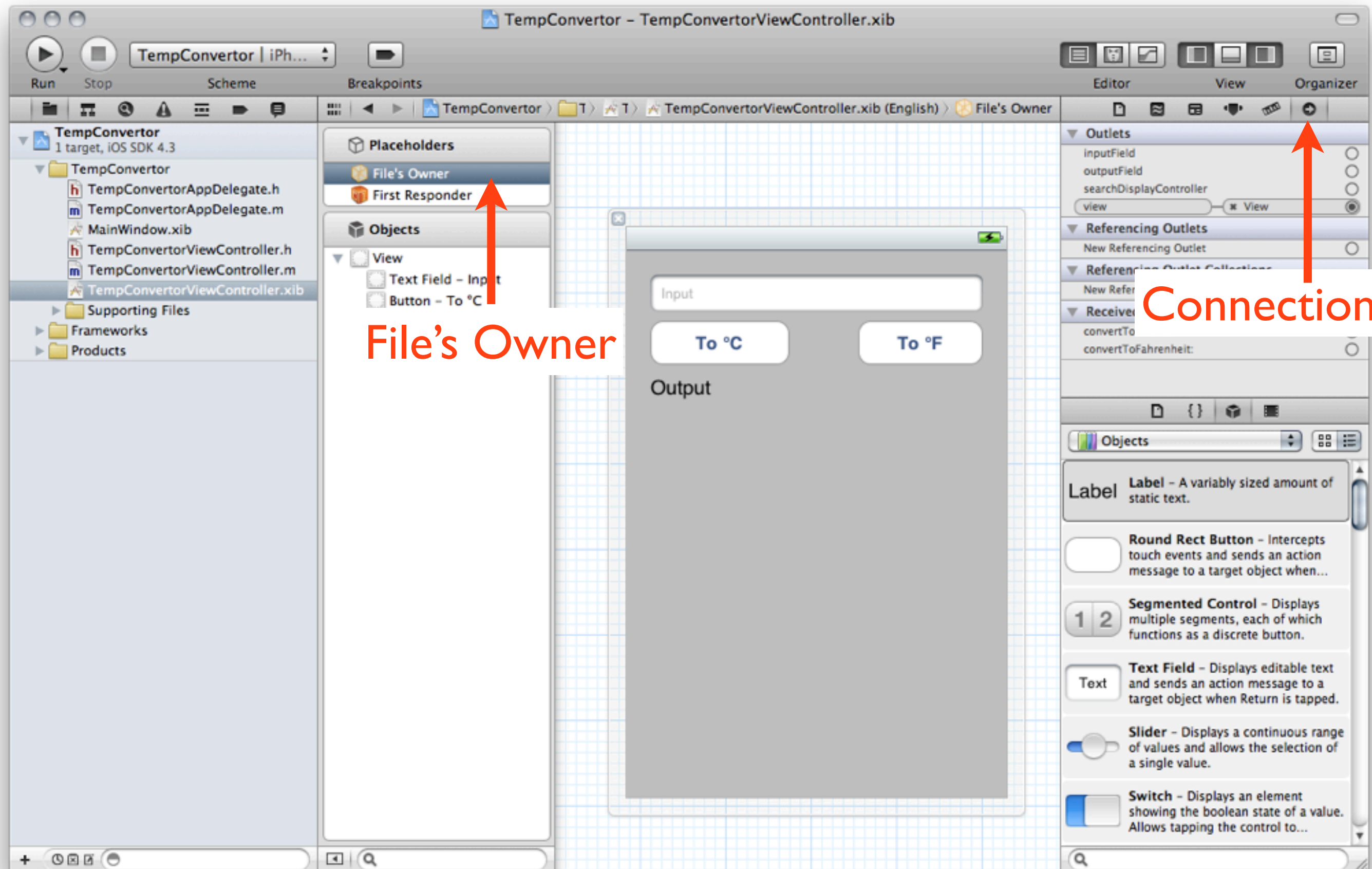
To Fahrenheit

```
-(IBAction)convertToFahrenheit:(UIButton *)sender {  
    int toConvert = [inputField.text intValue];  
  
    float converted = toConvert * (9.0 / 5.0) + 32;  
  
    outputField.text = [NSString stringWithFormat:@"%f °F",  
converted];  
}
```



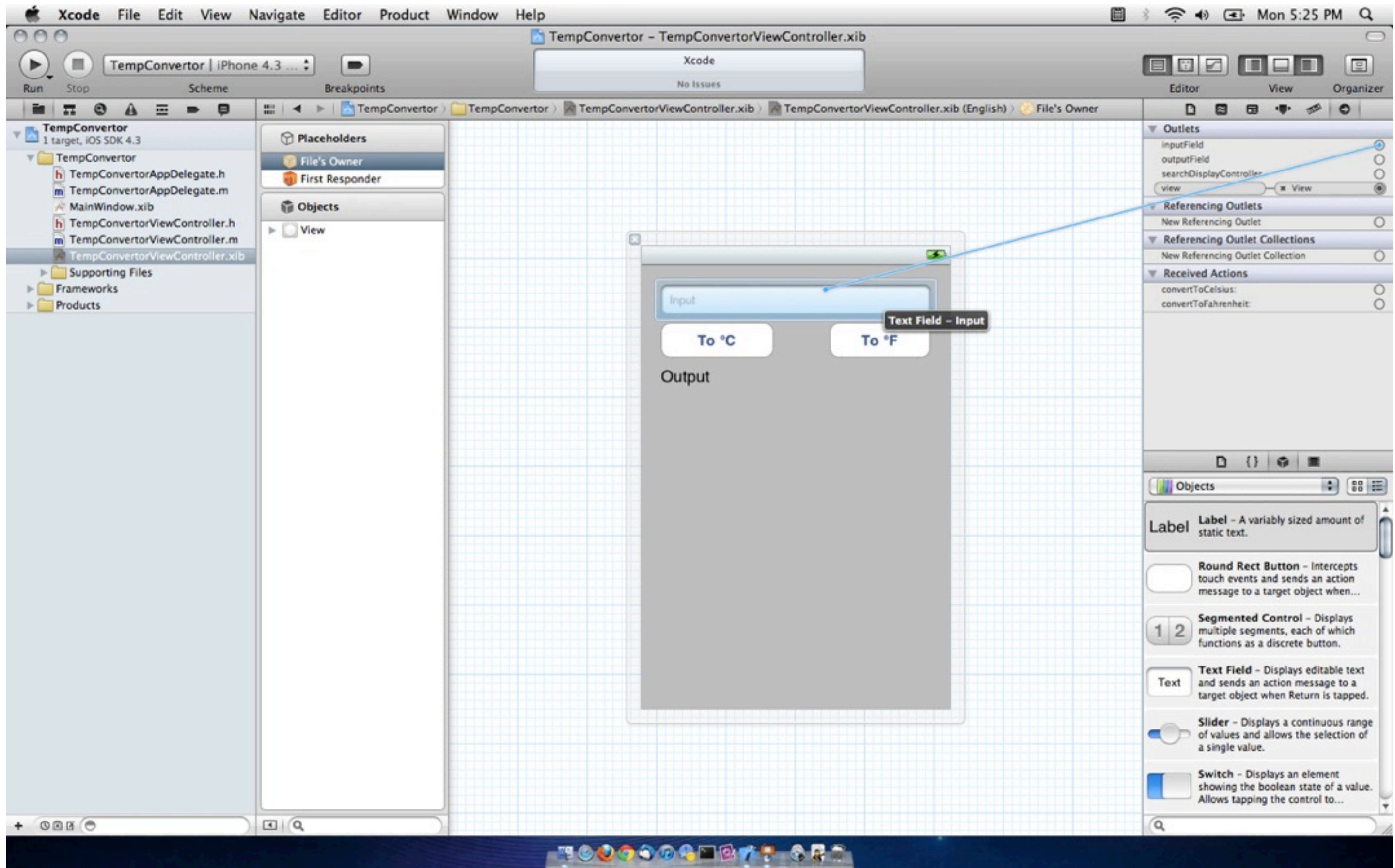
Wire Up Our Connections

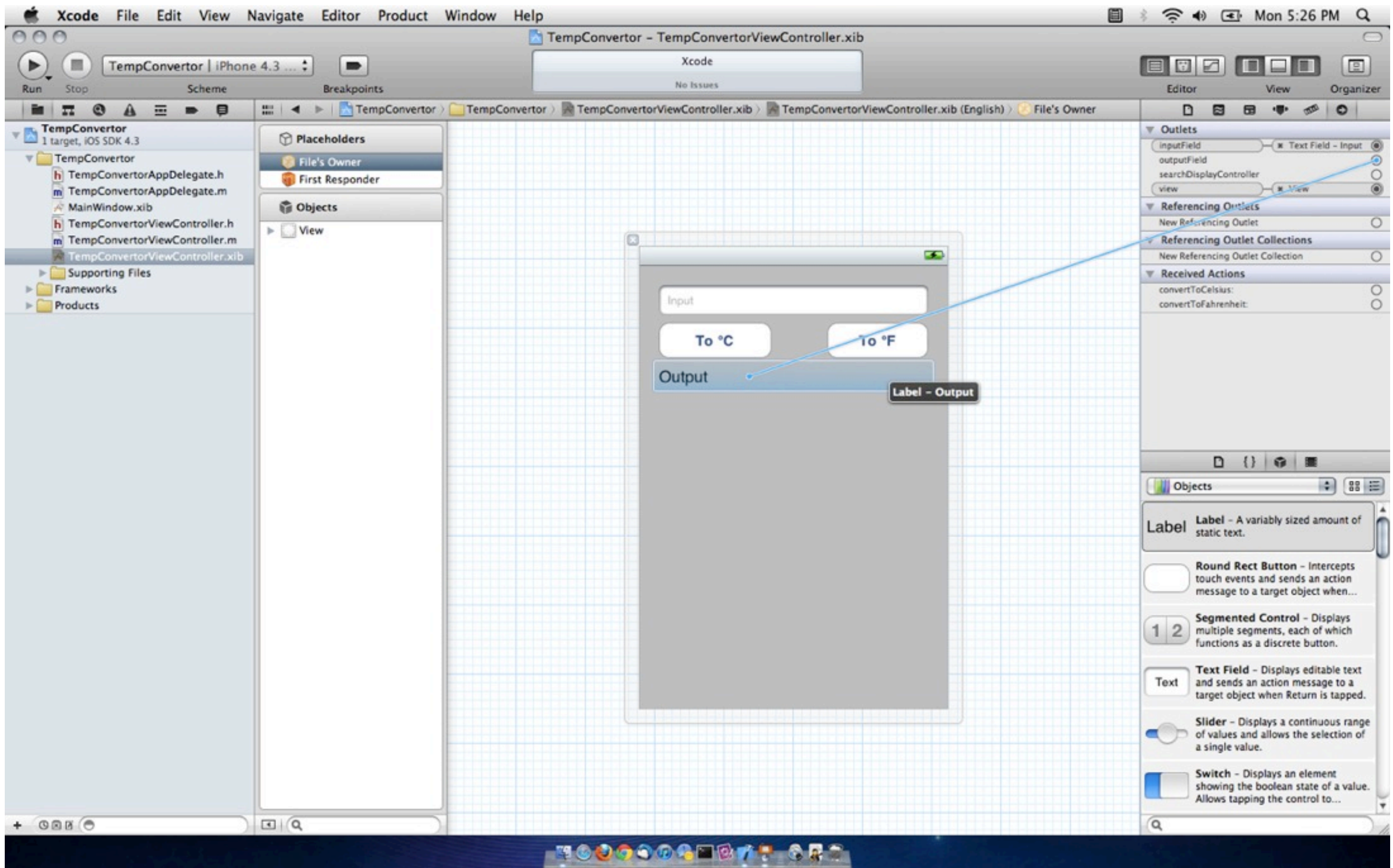
- Back to Interface Builder
 - Open TempConvertorViewController
- Open the “Connections” tab in the top area of the Utilities Panel
- Select the File’s Owner

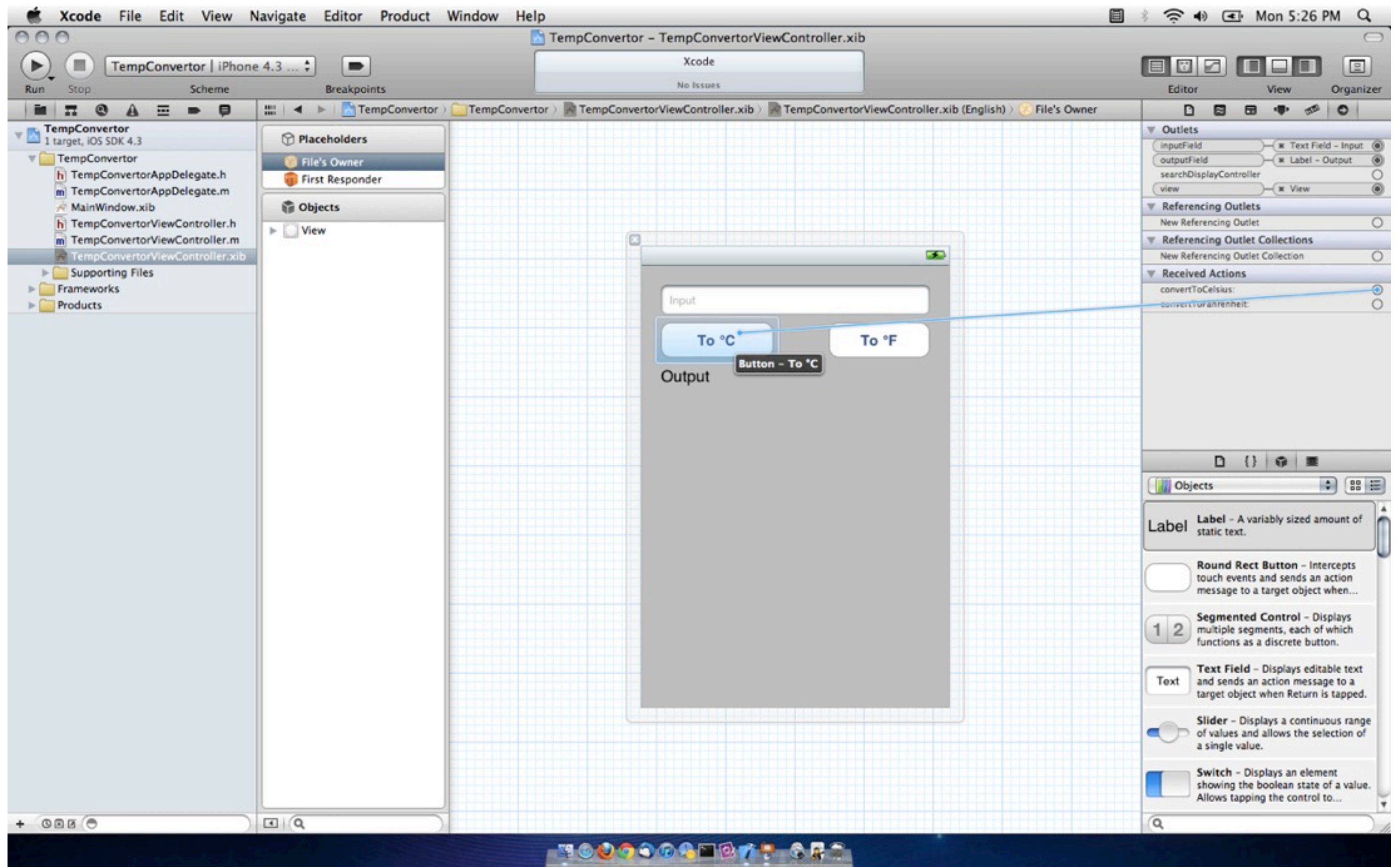


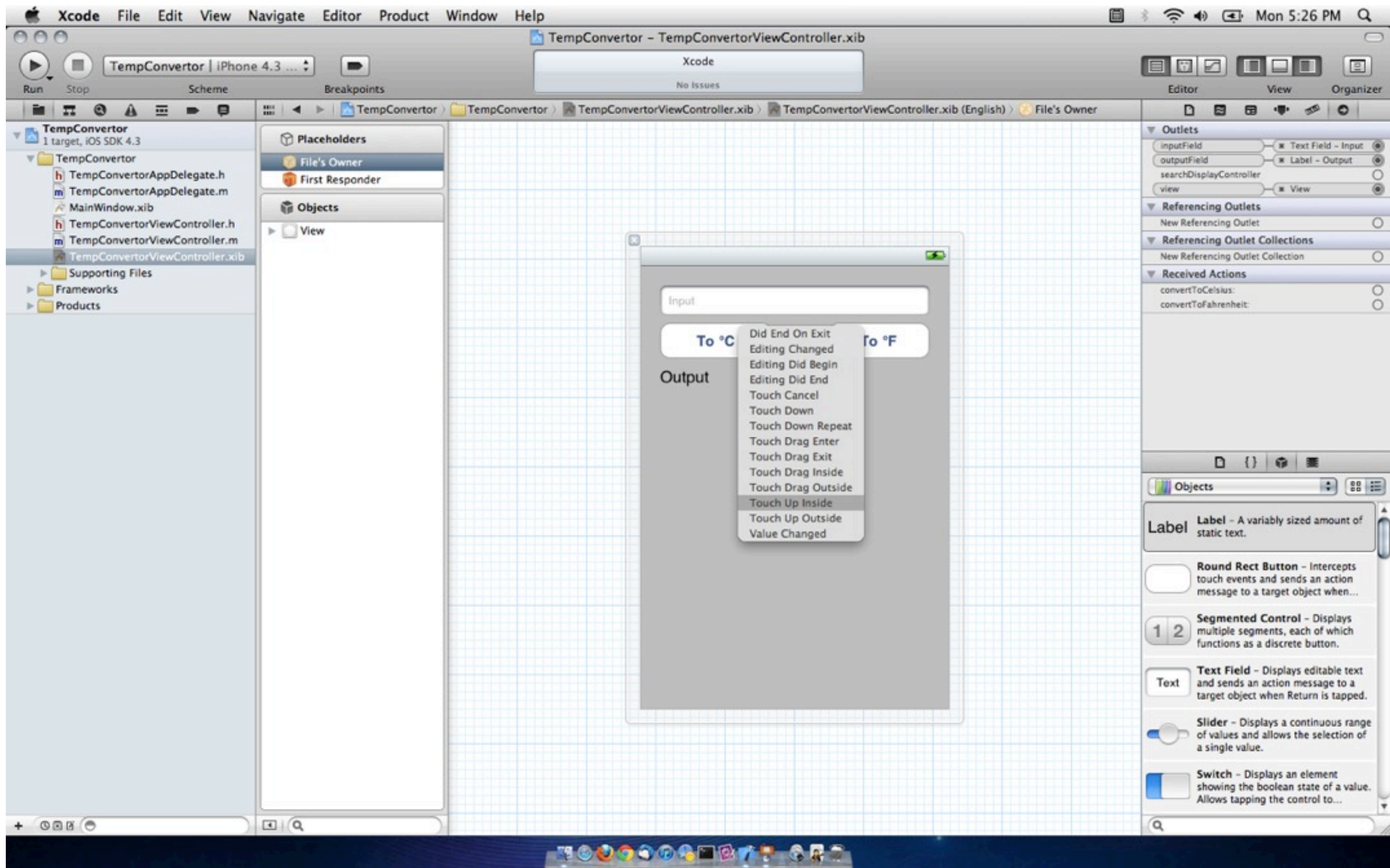
File's Owner

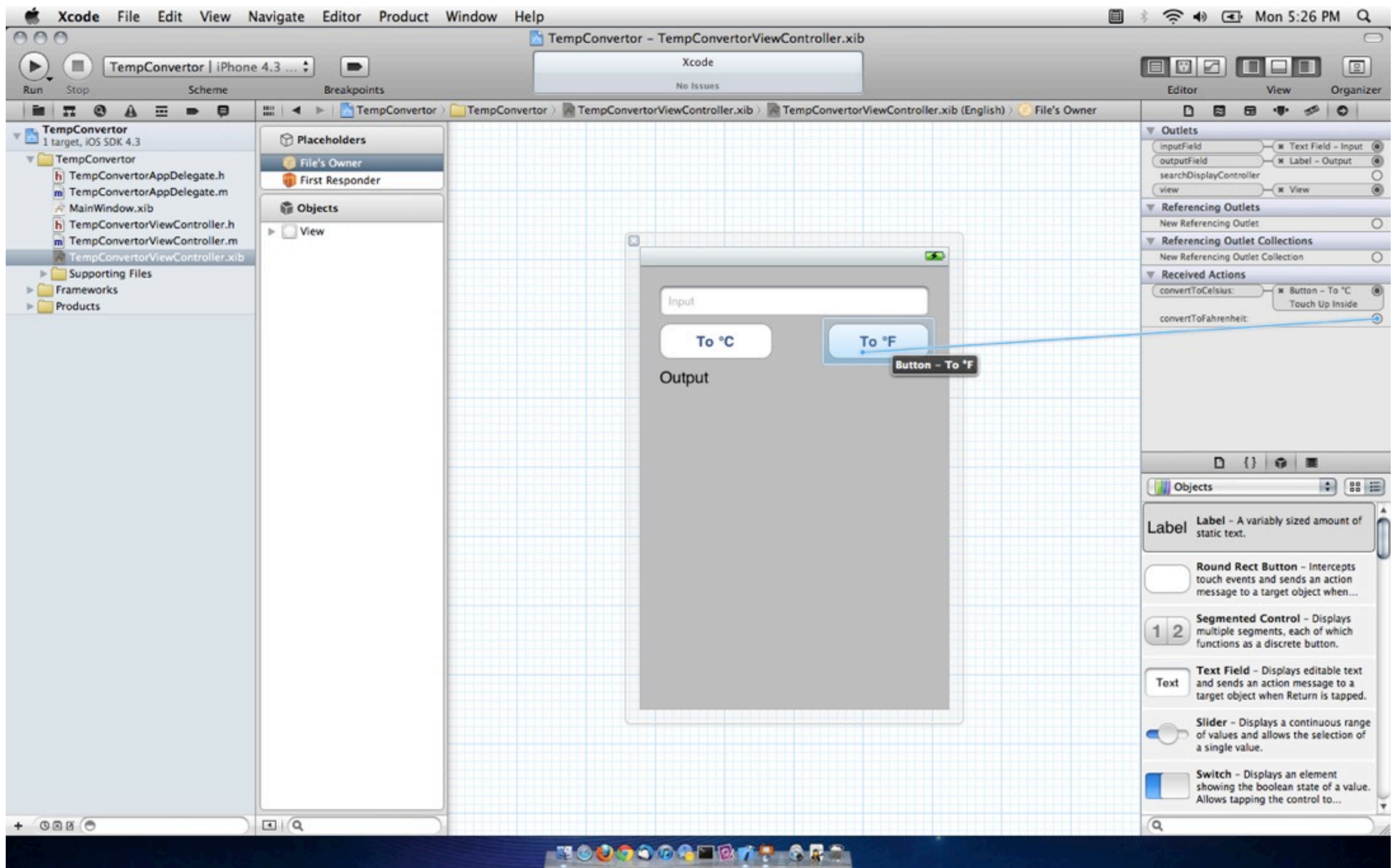
Connections Tab

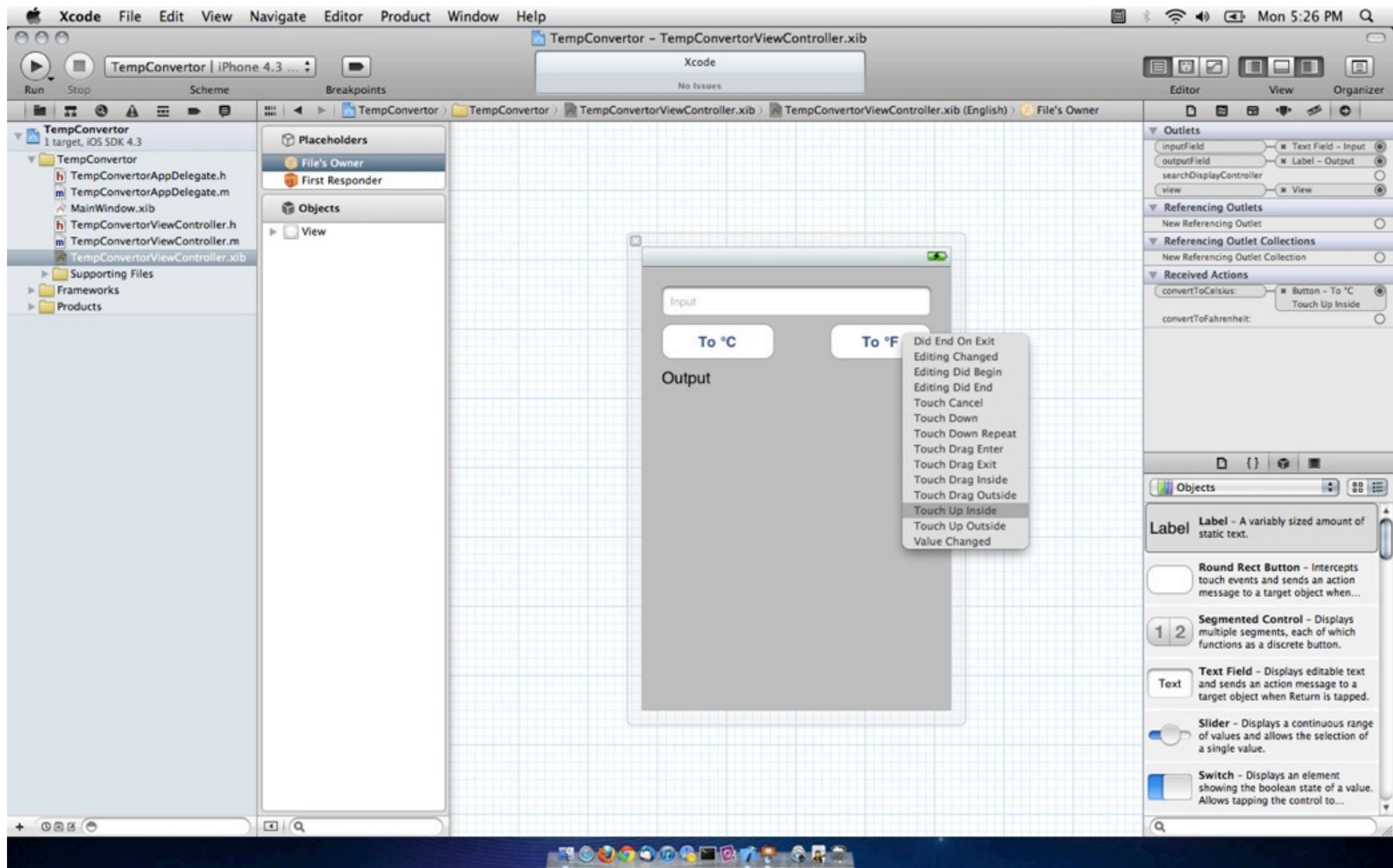












Run Our Application



Niceties

- Change the Keyboard type of our input field to Number Pad

